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| APPLICATION NO. | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO.        |  |
|-----------------|---------------|----------------------|------------------------------|-------------------------|--|
| 10/721,863      | 11/26/2003    | Leon Bottou          | 112817CON-2<br>(ATT.0140002) |                         |  |
| 75              | 90 04/13/2006 |                      | EXAMINER                     |                         |  |
| AT&T Corp.      |               |                      | CHEN, W                      | CHEN, WENPENG           |  |
| P.O. Box 4110   |               |                      |                              |                         |  |
| Middletown, N   | J 07748       | •                    | ART UNIT                     | PAPER NUMBER            |  |
|                 |               |                      | 2624                         |                         |  |
|                 |               | •                    | DATE MAILED: 04/13/2006      | DATE MAILED: 04/13/2006 |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)   |             |  |  |  |
|--|---|--|-------------|--|--|--|
|  | 10/721,863  | BOTTOU ET AL.  |             |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |             |  |  |  |
|  | Wenpeng Chen  | 2624   |             |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | pears on the cover sheet wit  | h the correspondence ad  | dress       |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period to Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNIC<br>(36(a). In no event, however, may a re-<br>will apply and will expire SIX (6) MONT<br>(c) cause the application to become ABA | ATION. bly be timely filed  HS from the mailing date of this condoned (35 U.S.C. § 133). |             |  |  |  |
| Status   |   |  |             |  |  |  |
| 1)☐ Responsive to communication(s) filed on  2a)☐ This action is <b>FINAL</b> . 2b)☒ This  3)☐ Since this application is in condition for alloward closed in accordance with the practice under Expression in the practice of the practice of the practice.  | s action is non-final.<br>nce except for formal matte   | •  | merits is   |  |  |  |
| Disposition of Claims  |   |  |             |  |  |  |
| 4) □ Claim(s) 15-28 is/are pending in the applicatio 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) 15,16 and 20-27 is/are allowed. 6) □ Claim(s) 17-19 and 28 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/o  | wn from consideration.  |  |             |  |  |  |
| Application Papers   |   |  |             |  |  |  |
| 9)⊠ The specification is objected to by the Examine  | ar  |  |             |  |  |  |
| 10) ☐ The drawing(s) filed on 26 December 2003 is/a  |   | obiected to by the Exam  | iner.       |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |             |  |  |  |
| Replacement drawing sheet(s) including the correct   | tion is required if the drawing(s   | s) is objected to. See 37 CF   | R 1.121(d). |  |  |  |
| 11)☐ The oath or declaration is objected to by the Ex  | kaminer. Note the attached  | Office Action or form PT   | O-152.      |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |             |  |  |  |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:      1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list   | es have been received.<br>es have been received in Ap<br>rity documents have been r<br>u (PCT Rule 17.2(a)).  | plication No eceived in this National  | Stage       |  |  |  |
| Attachment(s)  |   |  |             |  |  |  |
| Notice of References Cited (PTO-892)   | 4) Interview Su   |  |             |  |  |  |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) B) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/26/2003.   |   | Mail Date<br>ormal Patent Application (PTO<br>-  | -152)       |  |  |  |

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#### Examiner's Remarks

1. The Applicants indicated that Claims 15-28 relate to claims 16-29 of the prior application. The Examiner compared Claims 15-28 of the present application with Claims 16-29 of the prior application 09/947,410. Features of "coded image data signal," "coded image data," or "coded data signal" claims of application 09/947,410 are now recited in the method claims of the present application. The Examiner's positions with regard to prior art are thus maintained similarly here.

## Specification

2. The disclosure is objected to because of the following informalities: Application 09/947,410 has been issued as US patent 6728411. The first paragraph shall be amended to reflect the new status.

Appropriate correction is required.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed

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in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 17-19 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Das et al. (US patent 5,896,176 cited previously in parent case and in IDS of the present application.)

Das teaches a method coding data of an image having a non-masked (visible, foreground) image area and a masked (non-visible, background) image area. (Fig. 12) The method can be read to meet the requirements of Claims 17-19 with the following interpretation: the region of interest (ROI), the region outside ROI, and the motion compensated residual image to be a visible and foreground image area, a non-visible and background image area, and the corrected reconstructed image data, respectively.

The method comprises:

- -- coding the data by wavelet decomposition as coefficient data; (column 12, lines 9-19; column 13, lines 37-45; wavelet decomposition in Fig. 12)
- -- canceling a selected wavelet coefficient; (column 13, lines 46-63; Because only coefficients within ROI are considered and coded, the coefficients outside the ROI are canceled.)
- -- generating reconstructed image data for the visible and foreground image area and the non-visible and background image area from the remaining wavelet coefficients; (column 13, line 63 to column 14, line 3; wavelet reconstruction in Fig. 12; The reconstruction generates image data for both the visible image area and the non-visible image area.)
- -- correcting the reconstructed image data in the visible and foreground image area; (column 14, lines 4-18; column 13, lines 5-14; Because the details of the correcting step are not

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specified, the Examiner considered the motion compensated residual image, which is derived based on the information of the reconstructed image data in the visible image area, is the corrected reconstructed image data.)

- -- correcting the reconstructed image data only in the visible and foreground image area; (column 13, lines 28-37; Because the values of the residual image outside ROI are set to zero, the reconstructed image data is only corrected in the visible image area without regard to the reconstructed image data in the non-visible region.)
- -- coding the corrected reconstructed image data by wavelet decomposition as second coefficient data; (Fig. 12; column 13, lines 15-62)
  - -- outputting the second coefficient data. (output bit stream of Fig. 12)

Because the ROI data are local information, the wavelets representing the ROI are locally supported wavelets. The above method also meets the requirements recited in Claim 28.

## Allowable Subject Matter

5. Claims 15-16 and 20-27 are allowed.

The prior art does not teach or fairly suggest the recited Claim 15 that specifically comprises the following limitations:

- -- coding a background image as a plurality of image coefficients;
- -- canceling any image coefficients associated with spatial areas occupied by the foreground image;

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-- reconstructing image data in a background image area and in the foreground image area based on the remaining coefficients;

- -- correcting the image data in the background image area,
- -- coding the corrected reconstructed image data as a second plurality of image coefficients,
- -- canceling any second image coefficients associated with spatial areas occupied by the foreground image area.

The prior art does not teach or fairly suggest the recited Claims 20 and 26 that specifically comprise the following limitation:

- -- canceling coefficients of masked image data;
- -- reconstructing image data based on coefficients of non-masked image data,
- -- for any portion of the reconstructed image data that lies outside of the mask, substituting the original image data therefor, and repeating the generating, canceling, reconstructing and substituting steps at least once unless convergence is reached.

The prior art does not teach or fairly suggest the recited Claim 21 that specifically comprises the following limitations:

- -- canceling coefficients located below a mask as recited;
- -- reconstructing image data based on the remaining coefficients;

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-- for any portion of the reconstructed image data located *outside of the mask, substituting*original image data therefor, and repeating the generating and canceling steps at least once

unless the reconstructed image data converges to the original image data outside of the mask.

The prior art does not teach or fairly suggest the recited Claim 23 that specifically comprises the following limitations:

- -- identifying transform coefficients associated with image data below the mask as recited;
  -- for each identified transform coefficient w, modifying the coefficient as recited;
- -- reconstructing image data from the modified transform coefficients and the unaltered transform coefficients, and for any portion of the reconstructed image data x' that differs from a corresponding portion of the image data x, setting the reconstructed image data as recited.

#### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 571-272-7431. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications. TC 2600's customer service number is 571-272-2600.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Wenpeng Chen Primary Examiner Art Unit 2624

April 10, 2006

Wenter